

CALIBRATION STANDARD (CS) SERIES LOAD CELLS

FEATURES

- Designed for Metrology Lab Use
- Meets ASTM E74 Class A to 2% of Range, Class AA to 10% of Range (When Calibrated with Primary Standards)
- Lowest Creep
- Lowest Reproducibility Errors
- Includes ASTM E74 Transfer Standard Tension & Compression Calibration
- Temperature Compensated
- Proprietary Modulus Compensated Strain Gages
- Low Sensitivity to Rotation Error



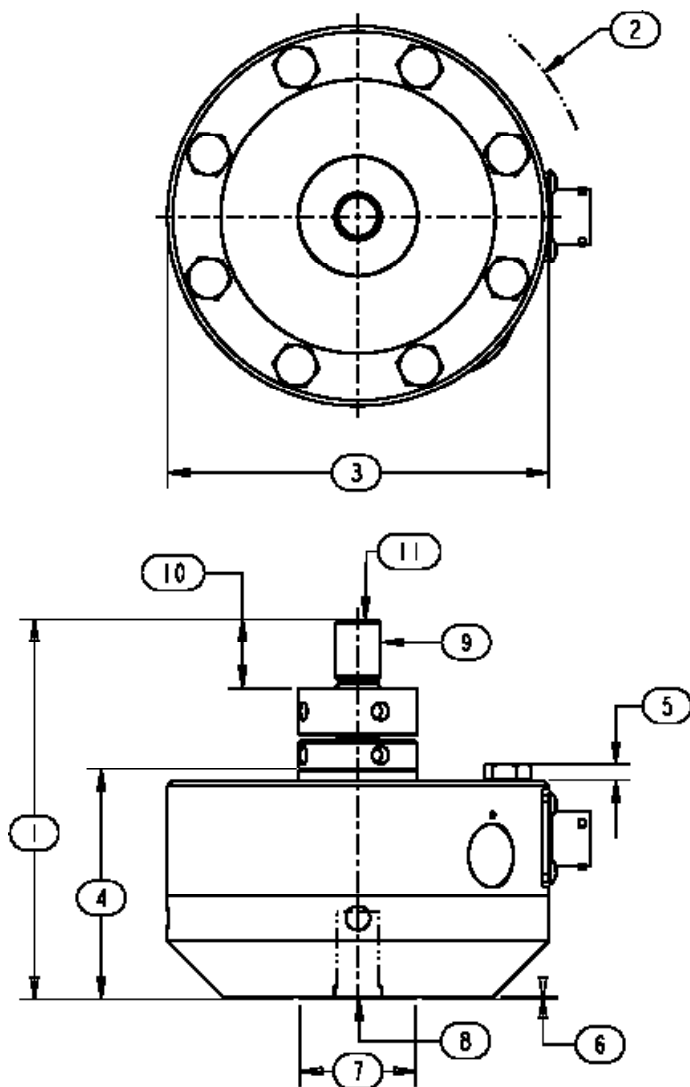
SPECIFICATIONS

Model	CS10 300, 500, 1K, 2K	CS10 5K, 10K	CS20 25K, 50K	CS22 60K	CS30 100K
Capacity U.S. lbf.					
Capacity Metric kN	1.5, 2.5, 5, 10	25, 50	100, 250	270	300, 500
PARAMETERS					
ACCURACY					
Lower Load Limit, % Rated Output	2.000	2.000	2.000	2.000	2.000
Static Error Band, % Rated Output	+/- 0.020	+/- 0.025	+/- 0.025	+/- 0.030	+/- 0.040
Nonlinearity, % Rated Output	+/- 0.020	+/- 0.030	+/- 0.030	+/- 0.030	+/- 0.045
Hysteresis, % Rated Output	+/- 0.020	+/- 0.040	+/- 0.045	+/- 0.040	+/- 0.045
Nonrepeatability, % Rated Output	+/- 0.005	+/- 0.005	+/- 0.005	+/- 0.005	+/- 0.005
Creep, % in 20 minutes	+/- 0.010	+/- 0.010	+/- 0.010	+/- 0.010	+/- 0.010
Off-Center Load Sensitivity, % / inch	+/- 0.050	+/- 0.050	+/- 0.050	+/- 0.050	+/- 0.050
Side Load Sensitivity, %	+/- 0.050	+/- 0.050	+/- 0.050	+/- 0.050	+/- 0.050
Zero Balance, % Rated Output	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.0
TEMPERATURE					
Range, Compensated, °F	+15 to +115	+15 to +115	+15 to +115	+15 to +115	+15 to +115
Range, Compensated, °C	-10 to +45	-10 to +45	-10 to +45	-10 to +45	-10 to +45
Range, Operating, °F	-65 to +200	-65 to +200	-65 to +200	-65 to +200	-65 to +200
Range, Operating, °C	-55 to +90	-55 to +90	-55 to +90	-55 to +90	-55 to +90
Effect on Sensitivity, % Rdg / °F	+/- 0.0008	+/- 0.0008	+/- 0.0008	+/- 0.0008	+/- 0.0008
Effect on Sensitivity, % Rdg / °C	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015
Effect on Zero, % Rated Output / ° F	+/- 0.0008	+/- 0.0008	+/- 0.0008	+/- 0.0008	+/- 0.0008
Effect on Zero, % Rated Output / ° C	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015	+/- 0.0015
ELECTRICAL					
Rated Output, mV/V, Nominal	2	4	4	4	4
Excitation Voltage, VDC Maximum	20	20	20	20	20
Input Resistance, Ohms	350 +40 / -3.5	350 +40 / -3.5	350 +40 / -3.5	350 +40 / -3.5	350 +40 / -3.5
Output Resistance, Ohms	350 +/- 3.5	350 +/- 3.5	350 +/- 3.5	350 +/- 3.5	350 +/- 3.5
Insulation Resistance, Megohms	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC	5000 @ 50 VDC
Bayonet Connector	PT02E-10-6P (MS3112E-10-6P)				
MECHANICAL					
Safe Overload Range, % Rated Capacity	+/- 150	+/- 150	+/- 150	+/- 150	+/- 150
Weight, lb	2.8	6.9	23.6	29.6	57.8
Weight, kg	1.3	3.1	10.8	13.4	26.2
Flexure Material	Aluminum	Steel	Steel	Steel	Steel

CALIBRATION STANDARD (CS) SERIES LOAD CELLS

DIMENSIONS

Model	CS10	CS10M	CS10	CS10M	CS20	CS20M	CS22	CS22M	CS30	CS30M
Capacity	300, 500 1K, 2K lbf	1.5, 2.5, 5, 10 kN	5K, 10K lbf	25, 50 kN	25K, 50K lbf	100, 250 kN	60K lbf	270 kN	100K lbf	300, 500 kN
Dimensions	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
1.	4.13	104.9	4.13	106.7	6.32	160.5	7.68	195	7.85	199.4
2.	R 2.53	R 64.3	R 2.53	R 64.3	R 3.50	R 88.9	R 3.50	R 88.9	R 4.50	R 114.3
3.	4.12	104.8	4.12	104.8	6.06	154.0	6.06	154.0	8.00	203.2
4.	2.50	63.5	2.50	63.5	3.50	88.9	4.50	114.3	4.50	114.3
5.	0.19	4.7	0.19	4.7	0.30	7.5	0.31	7.9	0.40	10.2
6.	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8	0.03	0.8
7.	1.25	31.8	1.25	31.8	2.25	57.2	3.00	76.2	3.00	76.2
8.	1/2 - 20 0.88 Deep	M12 x 1.25 22.4 Deep	5/8 - 18 0.88 Deep	M16 x 2 22.4 Deep	1 1/4 - 12 1.50 Deep	M33 x 2 38.1 Deep	1 1/2 - 12 2.0 Deep	M36 x 2 30.8 Deep	1 3/4 - 12 1.75 Deep	M42 x 2 44.5 Deep
9.	1/2 - 20	M12 x 1.25	5/8 - 18	M16 x 2	1 1/4 - 12	M33 x 2	1 1/2 - 12	M36 x 2	1 3/4 - 12	M42 x 2
10.	0.75	19.0	0.75	19.0	1.50	38.1	1.50	38.1	1.75	44.5
11.	R 4.00	R 101.6	R 4.00	R 101.6	R 6.00	R 152.4	R 6.00	R 152.4	R 12.00	R 304.8



OPTIONS

- Additional bridges
- Output adjustment to standard
- Compression overload protection
- Integral cable
- Custom connectors
- Connector Protectors

ACCESSORIES

- Mating connector
- Loading fixtures
- Interconnect cable
- Shunt calibration resistor
- Instrumentation